2.2.3.12 Southwest Savanna Ecological Landscape

Figure 2-36. Southwest Savanna Ecological Landscape.

General Description

The Southwest Savanna Ecological Landscape is located in the far southwestern part of the state (Figure 2-36). It is characterized by deeply dissected topography, unglaciated for the last 2.4 million years, with broad open hilltops and river valleys, and steep wooded slopes. The climate is favorable for agriculture but the steep slopes limit it to the hilltops and valley bottoms. Soils are underlain with calcareous bedrock. Soils on hilltops are silty loams, sometimes of shallow depth over exposed bedrock and stony red clay subsoil. Some valley soils are alluvial sands, loams, and peats. Some hilltops are almost treeless due to the thin soil while others have a deep silt loam cap.

Vegetation

Historic vegetation consisted of tall prairie grasses and forbs with oak savannas and some wooded slopes of oak.

Almost three-quarters of the current vegetation is agricultural crops with lesser amounts of grasslands, barrens, and urban areas (Figure 2-37). The major forest types are oak-hickory and maple-basswood. High-quality prairie remnants occur on rocky hilltops and slopes that are not farmed. Some prairie pastures and oak savannas still exist. The grassland areas harbor many rare grassland birds, invertebrates, and other grassland species. Relict stands of pine occur on bedrock outcroppings along some stream systems.

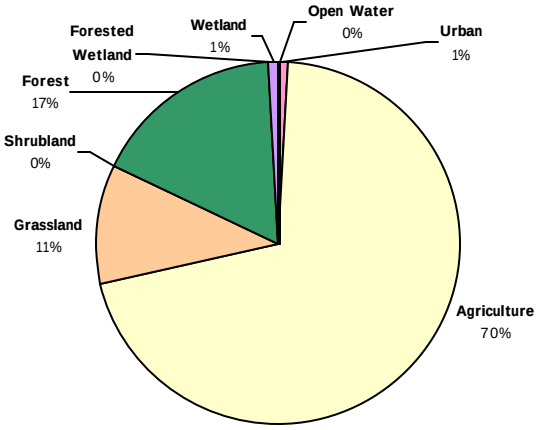

Figure 2-37. Current land cover in the Southwest Savanna Ecological Landscape.

Hydrologic Features

Warm-water streams flow throughout this Ecological Landscape and include the Pecatonica and Galena Rivers. Some contain rare aquatic species. No natural lakes occur in the Ecological Landscape.

Although the lakes that are present are the cleanest in the state, the watersheds and streams are ranked as relatively polluted according to the Wisconsin DNR.

Land Use

The total land area for the Southwest Savanna Ecological Landscape is approximately 1.2 million acres, of which only 11% is classified as timberland. Less than 1% of the Ecological Landscape is in public ownership (Figure 2-38).

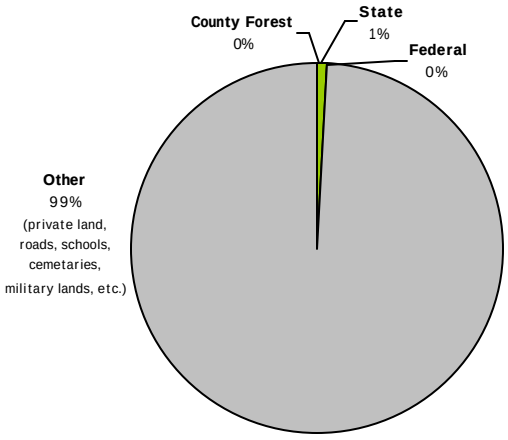

Figure 2-38. Public land ownership in the Southwest Savanna Ecological Landscape .

Socioeconomics

Socioeconomic data are summarized based on county-level approximations of the Ecological Landscape (referred to as a "region"). Economic data are available only on a political unit basis with counties as the smallest unit. The counties included in this socioeconomic region are Dane, Grant, Green, Iowa, and Lafayette ("Southwest Savanna Region"). Although less than 25% of Dane County and none of the Madison Metropolitan area lies within this Ecological Landscape, it was included in the socioeconomic region.

This may cause some discrepancies when analyzing the socioeconomic structure of the Ecological Landscape. However, the social and economic character of the Ecological Landscape and its residents may be significantly impacted by Madison's proximity.

This region is highly dependent on agriculture. It has a greater percentage of farmland than any other region and the highest market value per acre of agricultural products sold. Note that farmland includes all land under farm ownership such as cropland, pastureland, and woodland. The counties of the Southwest Savanna Region rank second in milk production per acre and first in corn production per acre. Although much of the land is in agriculture, it is somewhat less intensive than in other parts of the state, including large pastures and many Conservation Reserve Program lands. Compared to other Ecological Landscapes, the acreage in lakes is low, as is the number of fisheries and wildlife areas. The percentage of timberland being sold and diverted to other uses is higher than in any other region. Wooded slopes are often managed for oak-hardwood production. In some cases oak forest is being replaced with cherry, red maple, and hickory due to fire suppression, harvest methods, and invasive shrub competition.

The population of the Southwest Savanna Region is racially diverse and well educated. The population density (100 persons/mi^2) is slightly greater than that of the state as a whole (96 persons/mi^2). Of all the regions, it has the smallest percentage of elderly (over 65 years old) and the second highest percentage of nonwhites (African-American, Hispanic, and Asian). The number of high school and college graduates is second highest in the state. There is a relatively high per capita income and low rates of both poverty and unemployment. The government sector is stronger in this region than any other part of the state and manufacturing is not a strong employer. (The demographic and economic information for this region is significantly impacted by including Dane County.)

Management Opportunities

- This Ecological Landscape has many opportunities for restoring rare grassland and oak savanna communities.
- Large-scale restoration of prairies and oak savanna is possible throughout most of the Ecological Landscape including protection of prairie remnants.
- There are major opportunities for grassland bird management.
- Opportunities for rare prairie species restoration and management include the Henslow's sparrow, loggerhead shrike, Bell's vireo, prairie bush clover, regal fritillary butterfly, other rare invertebrates, and the Blanchard's cricket frog.
- There are management opportunities for aquatic resources such as restoration and preservation of high quality warmwater streams and smallmouth bass fisheries as well as trout stream management.
- Opportunities to manage for rare fish species including the slender madtom and the Ozark minnow.
- Protection and management of the Pecatonica and Sugar Rivers, to maintain the ecologically significant component of southern species which are at the edge of their ranges. The floodplains and adjacent communities represent one of the few places in the Ecological Landscape with extensive forest cover, and include remnant prairies, fens, and savannas as well as floodplain forests. These areas provide habitat for certain rare plants and invertebrates.
- Protection of some pine relicts may be possible.

Natural Communities

The following table (Table 2-14) lists the natural communities occurring in the Southwest Savanna arranged by the level of opportunity to sustain and manage the community type in this Ecological Landscape. For further explanation of natural communities and opportunities to sustain them, see Section 3.3.

Table 2-14. Natural communities occurring in the Southwest Savanna arranged by the level of opportunity to sustain and manage the natural community type in this Ecological Landscape.

Major Opportunity	Important Opportunity	Present
Oak Opening	Pine Relict	Floodplain Forest
Oak Woodland	Southern Dry Forest	Hemlock Relict
Dry-Mesic Prairie	Southern Dry-Mesic Forest	Cedar Glade
Dry Prairie	Southern Mesic Forest	Sand Prairie
Mesic Prairie	Wet-Mesic Prairie	Emergent Aquatic
	Dry Cliff	Submergent Aquatic
	Moist Cliff	Ephemeral Pond
		Shrub Carr
		Southern Sedge Meadow
		Wet Prairie